

REMARKS

Reconsideration of the application is respectfully requested.

I. Status of the Specification

The Title was changed to be clearly indicative of the invention to which the claims are directed.

II. Status of the Claims

Claim 1 was amended, and the amendment does not add new matter.

Claims 2-7 are pending. No new matter has been added.

Claim 8 is added. Claim 8 recites an inspection apparatus for detecting a defect of a glass bottle by imaging light, including the use of a pre-determined reference position. Support for the claim is found in the Specification at, for example, page 11, lines 13-18.

III. Rejection under 35 U.S.C. § 102

Claim 1 is rejected under 35 U.S.C. § 102(b) as being anticipated by Nicks et al. (U.S. Patent No. 5,969,810, "Nicks"). The Examiner contends that Nicks discloses all the elements of the claims.

Regarding claim 1, it has been amended to recite that the "angle detection device for visually detecting a rotation angle of the glass bottle with respect to a reference position." The present

invention identifies a pre-determined reference position and visually detects an angle relative to the pre-determined reference position. The Specification, page 6, line 25 to page 7, line 3 discloses:

According to the present invention, the reference image is prepared in each angle in advance, and an actual image having angle information obtained by imaging the glass bottle to be inspected is compared with the reference image, and hence a defect at a specific part of the glass bottle can be detected. Therefore, if the reference image is prepared in each angle on the basis of the glass bottle having no defect (non-defective bottle), a defect at a specific part of the glass bottle can be detected by judging whether the actually obtained image in each angle has an area different from the reference image.

In contrast, Nicks does not disclose the use of any pre-determined reference position on the container or comparing that reference to any pre-determined images. Nicks teach using cameras to take images at selected times during the rotation of the bottle and storing the captured images. The images are then assembled to form a two-dimensional image of the container. The image is formed by assembling the image in order using the position data. *See*, Nicks, column 4, lines 29-41. Nicks is silent regarding a pre-determined reference position, nor needs one. Nicks solely needs the position of the bottle to assemble the pictures in order, and each image can start at a different position on every bottle.

Further, Nicks does not detect the rotation angle visually. Nicks discloses using an encoder 40 “coupled to the container rotation mechanism to provide signals indicative of increments of container rotation”. Nicks, column 4, lines 29-31. An encoder is “sensor or transducer for

converting rotary motion or position to a series of electronic pulses”¹ and thus does not visually detect the rotation angle.

Applicants respectfully submit that Nicks does not teach or suggest all of the elements of the claims and respectfully request the rejection be withdrawn.

IV. Rejection under 35 U.S.C. § 103

Claims 2-4 are rejected under 35 U.S.C. § 103(a) as obvious over Nicks in view of U.S. Patent No. 4,758,084 to Tokumi et al. (“Tokumi”). Claims 5-7 are rejected under 35 U.S.C. § 103(a) as obvious over Nicks in view of U.S. Patent No. 4,872,757 to Cormack et al. (“Cormack”).

Claims 2-7 depend from claim 1. As stated previously above, Nicks do not disclose, teach, or suggest the visual detection of the rotation angle element in the amended claim 1. Therefore, for at least the same reasons as claim 1, claims 2-7 are not obvious from the cited prior references.

Further, neither Tokumi nor Cormack teach or suggest the elements missing from Nicks and present in the claims. Applicants respectfully request that the rejections be withdrawn.

Furthermore, Nicks, Tokumi, and Cormack, neither alone or in combination, teach nor suggest all of the elements of new claim 8.

¹ Free On-Line Dictionary of Computing – FOLDOC - <http://foldoc.org/foldoc.cgi?query=encoder>. Last accessed June 27, 2006.

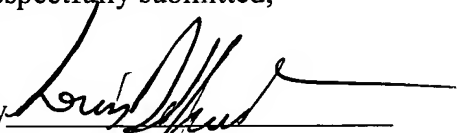
CONCLUSION

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

The Examiner is respectfully requested to contact the undersigned at the telephone number indicated below once he has reviewed the amendment if the Examiner believes any issue can be resolved through either a Supplemental Response or an Examiner's Amendment.

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Respectfully submitted,

By 

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